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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,912	08/02/2000	Benjamin Russell Grimes	RPS920000021US1	7900

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EXAMINER

ORTIZ, XIOMARA Y

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 12/08/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/630,912

Applicant(s)

GRIMES ET AL.

Examiner

Xiomara Y. Ortiz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 02 October 2000 was filed after the mailing date of the application on 02 August 2000. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Ying U.S Patent No. 6611860 B1.

Regarding claim 9, Ying teaches a method and apparatus for implementing a control network; see abstract col. 1 line 7-8. The method for implementing control network, as disclosed by Ying, includes communication between nodes in which the master node polls each of the slave nodes periodically. In figure 1, can be appreciated a main data bus 104, connected to a first-tier slave nodes 109 and 123, see col. 5 lines 6-7. Each of the slaves nodes receives the control message, but only reacts if it recognizes its own identification number or address in the control message, it is inherent that if the

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identification number or address in the message is not the same as the one in the node receiving it, the node does not communicate with the master sending a response, which is the same as disconnecting from the communication with the master. The slave node responds to the master node with an acknowledgement message, wherein the messaging between the master node and the slave nodes involve communication between them because of the data transfer, see col.10 lines 1-16. Therefore, Ying complies with all the limitations in claim 9, which includes, receiving and responding by a slave computer system to a session request from the master computer, determining, by the slave computer, whether the session request is for the slave computer system, in response establish communication with the master, and if the session request is not for the slave computer system, disconnect communication same as not continue communication between the master and the slave computer system.

Regarding claims 10 and 18, Ying teaches a method and apparatus for implementing a control network and therefore this method and apparatus must have a program to implement such method and apparatus; see abstract col. 1 line 7-8. The implementation of the control network, as disclosed by Ying, includes slave nodes comprising a CPU (Central Processing Unit), a transceiver, which is a communication device that transmit and receive, and an EEPROM (Electrical Erasable Programmable Read-Only Memory), which is a non-volatile memory, see col. 6 lines 25-34. Inherently such transceiver in the slave node, communicates through the main bus 104, which the slave node 109 or 123, is connected, see col.5 lines 6-7. It is implicit that the transceiver, being the communication device in the slave node, to be the device that receives and respond to the master node poll and is also implicit that the CPU, being the "brain" of the

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computer, the device that interprets and executes instructions in a computer, to be the device which determine whether the polling message address or unique identification number is the same of the slave node receiving it. Once the slave node recognizes its own identification number or address in the control message, respond to the master node with an acknowledgement message, wherein answering messages is a form of communication, see col. 10 lines 7-12. It is inherent that if the node does not recognize it's identification number or address, it will disconnect from communication with the master node, meaning the same as not continue communication with the master node. Therefore, Ying complies with all the limitations in claim 10, which includes, that the slave node comprise of a processor for determining if the session request from the master computer system is for the slave computer system, a memory and a communication device, to receive and respond to the session request from the master computer system. Ying also complies that after determining that the message is for the slave computer system, maintain communication between the slave computer system and the master computer system and if is not, disconnect the slave computer system from communication with the master computer system with a response for the master computer system.

Regarding claims 11 and 19, Ying complies all the limitations in claims 10 and 18, and also disclose that the slave node is provided with a unique node identification number or address that distinguish it from al the other nodes, see col.10 lines 4-6.

Regarding claim 12, Ying complies all the limitations in claim 11 and also disclose that the memory is an EEPROM to store programming information utilized by the CPU, which is a non-volatile memory, see col.6 lines 31-34.

Regarding claims 13 and 20, Ying complies with all the limitations in claims 10 and 18, and also disclose an CPU which include means for performing computations necessary for its functionality, see col.6 lines 17-21, wherein one of the functionalities of the slave is to receive a control message, react to if it recognizes its own node identification number or address, and respond to the master node with an acknowledgement message, see col.10 lines 8-16. The messaging between the master node and the slave node can be done through a particular data bus, see col.10 lines 20-25.

Regarding claims 14 and 21, Ying complies the limitations in claims 10 and 18, and also disclose a master node communicating with a slave node wherein the master mode in the master node is a command mode and a slave mode in the slave node is a listen mode, see col.20 lines 54-55.

Regarding claim 15, Ying complies with all the limitations in claim 10, and also discloses that in the preferred embodiment, the communication over the data bus is using time-multiplexing such that only one node transmit over the particular data bus at a given time, see col.9 lines 27-30. By definition, serial, is one event at the time.

Regarding claims 16 and 22, Ying complies with all the limitations in claims 10 and 18, and also discloses that each node configured as slave node, remains in a listen mode, receiving but not transmitting messages over the data bus, unless specially requested to transmit information over the data bus by the master node, see col.8 lines 15-19.

Regarding claims 17 and 23, Ying complies with all the limitations in claims 16 and 22, and also discloses that each of the slaves receives the control message but only reacts if it recognizes its own node identification number or address in the control

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message, after a designated time period, the slave node responds to the master node with an acknowledgement message, see col.10 lines 8-17. It is inherent, that if the slave node's mode is the listen mode when receiving but not transmitting, the state of the slave node to be response or answer node when respond to the master node.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 5, 6, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ying U.S Patent No. 6611860 in view of Momona U.S. Patent No. 5815660.

Ying discloses a master node polls the slave nodes, see col.10 lines 3-4, wherein polling is verifying the status of a device to see if is ready to transmit, is a form of communication, where such master node polls the slave nodes through a data bus, see col.10 lines 20-23. "The master node may also send out a broadcast control message that is intended for receipt by more than one of the slave nodes. The broadcast control message can comprise a node identification number or address that instructs a single particular node to respond to the broadcast control message." see col.10 lines 27-32.

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Ying complies with some of the limitations in claim 1 that are, directing session request by a master computer system to a plurality of slaves, wherein session request means establish communication, requesting by a master computer to establish communication with a particular slave computer among the plurality of slave computer systems, and maintain communication between the master computer system and only the particular slave computer system.

But Ying fails to disclose receiving and responding to the session request by the plurality of slave computer systems.

However Momona disclose a master station polling each slave station and each slave station responding transmitting data to the master station see col. 1 line 23-35.

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Ying and combining it with the invention disclosed by Momona. The results of this combination would lead to a master polling all the slaves for status, response of all of the slaves, later the master sends a message to a particular node, which respond with an acknowledgment or a message, wherein messaging is a form of communication.

One of ordinary skill in the art would have been motivated to do this combination because if the slaves are not poll and verify their status, slaves having transmission data has to keep waiting until it receives the polling signal, causing the slave having such data to delay its transmission, see Momona col.1 lines 43-45.

Regarding claim 2, the combination of Ying and Momona complies with all the limitations in claim 1, and also disclose that each of the nodes is provided with a unique node identification number or address that distinguish it from all other nodes of the

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control network. The master node sends a control message to each slave unit in turn using the node identification number or address to identify the intended destination, see Ying col.10 lines 4-9.

Regarding claim 4, the combination of Ying and Momona complies with all the limitations in claim 1, and also mentions “each node 530 configures as a slave node, remains in a listen node, receiving but not transmitting messages over the data bus, unless specifically requested to transmit information over the data bus by the master node”, see col.8 lines 15-19, and “ the slave nodes respond to the master node with an acknowledgement or a status message, see col.10 lines 15-16. It is preferable to establish a communication protocol to avoid collision, wherein a simple and effective communication protocol is one in which the master node for the particular data bus sends a control message for a particular slave node, where the slave node respond with an acknowledgement or an status message, see col.10 lines 20-25. These quotes complies with the limitations in claim 4, where the master and the slave communication system establish communication between a common communication channel and that the other slave communication systems remain disconnected except the slave communication system communicating from the communication channel.

Regarding claim 5, Ying complies the limitations in claim 1, and also disclose a master node communicating with a slave node wherein the master mode in the master node is a command mode and a slave mode in the slave node is a listen mode, see col.20 lines 54-55.

Regarding claim 6, the combination of Ying and Momona complies with all the limitations in claim 1, and also disclose that in the preferred embodiment, the

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communication over the data bus is using time-multiplexing such that only one node transmit over the particular data bus at a given time, see Ying col.9 lines 27-30. By definition, serial, is one event at the time.

Regarding claims 7 and 8, the combination of Ying and Momona complies with all the limitations in claim 1, and also disclose each node configured as slave node, remains in a listen mode, receiving but not transmitting messages over the data bus, unless specially requested to transmit information over the data bus by the master node, see col.8 lines 15-19.

6. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ying U.S Patent No. 6611860 in view of Momona U.S. Patent No. 5815660 in further view of Kosbab U.S. Patent No. 5917808.

Regarding claim 3, the combination of Ying and Momona complies with all the limitations in claim 2, and also inherently discloses storing the unique node identification number in the slave node so it can identify whether the message from the master is to the slave node and the memory that the slave nodes have are EEPROM which is a non-volatile memory. But, the combination fails to disclose, storing the unique identification number and an identity of the slave computer systems in a table in the memory device of the master computer system.

However Kosbab disclose a method for identifying device types on a network. Kosbab teaches a table in the device that receives information from the network and stores it in a table in the database of a memory. The table contains fields as the device

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name and the Mac address, wherein the Mac address is the unique hardware number of the computer, see fig.4.

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by the combination of Ying and Momona and combining it with the invention disclosed by Kosbab. The results of this combination would lead to a master having stored in the memory, a table with information of all the slave nodes containing information as the unique node identification number and the device name.

One of ordinary skill in the art would have been motivated to do this combination because in order for the master node poll the slave node it must have the address or information of the node to communicate to, see Ying col.10 lines 3-9.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiomara Y. Ortiz whose telephone number is (703) 305-6783. The examiner can normally be reached on Monday-Thursday from 8:30AM to 5:30PM. The examiner can also be reached on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Xiomara Y. Ortiz
Patent Examiner
Art Unit 2141

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER